

What is claimed is:

1. A motor comprising:

a motor case;

a rotatable shaft that is rotatably supported by said motor case and is rotated upon actuation of said motor;

a worm shaft that is substantially coaxial with said rotatable shaft and is rotatably supported by said motor case;

a coupling member including a driving-side rotator and a driven-side rotator that is drivingly engageable with said driving-side rotator, said driving-side rotator being connected to said rotatable shaft to rotate integrally therewith, said driven-side rotator being connected to said worm shaft to rotate integrally therewith; and

a rotational sensor that includes a sensor magnet and a sensing element, said sensor magnet rotating integrally with said rotatable shaft, said sensing element measuring a rotational speed of said sensor magnet, wherein:

said sensor magnet is secured to said driving-side rotator to rotate integrally therewith; and

said sensing element is secured to said motor case in such a manner that said sensing element opposes said sensor magnet.

2. A motor according to claim 1, wherein said coupling member permits misalignment between a rotational axis of said rotatable shaft and a rotational axis of said worm shaft.

3. A motor according to claim 1, wherein said coupling member transmits rotation of said rotatable shaft to said worm shaft and prevents transmission of rotation of said worm shaft to said rotatable shaft.

4. A motor according to claim 1, wherein said sensor magnet is arranged to cover a space that is defined in said coupling member and that is communicated with an interior of said coupling member.

5. A motor according to claim 4, wherein:

said coupling member further includes a housing that circumferentially surrounds said driving-side rotator and said driven-side rotator;

said driving-side rotator includes a shaft portion that protrudes out of said housing of said coupling member, said shaft portion including an interfitting recess with which said rotatable shaft is interfitted;

said space is annular and is defined between said housing of said coupling member and said shaft portion; and

said sensor magnet is annular-disk shaped and has an outer diameter that is greater than an outer diameter of said space such that said sensor magnet covers said space.

6. A motor according to claim 1, wherein:

said motor case includes a cup-shaped yoke and a housing, said cup-shaped yoke having an open end and receiving said

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rotatable shaft, said housing of said motor case receiving said worm shaft and being secured to said open end of said yoke;

said open end of said yoke has a brush holder secured therein, said brush holder being made of a resin material and holding a power supplying brush on a first axial side of said brush holder which faces an interior of said yoke; and

said sensing element is secured to a second axial side of said brush holder that is opposite to said first axial side of said brush holder.

7. A motor according to claim 6, wherein said sensing element is secured on a circuit board that is, in turn, secured to said second axial side of said brush holder.

8. A motor according to claim 1, wherein said sensing element is a Hall IC.